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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,542	12/14/2000	Paul G. Wilson	13551	6558
293	7590	10/04/2005	EXAMINER	
Ralph A. Dowell of DOWELL & DOWELL P.C. 2111 Eisenhower Ave. Suite 406 Alexandria, VA 22314			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,542

Applicant(s)

WILSON ET AL.

Examiner

Shick C. Hom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-17,19-27 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 7,8,18 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/21/05 have been fully considered but they are not persuasive.

In response to applicant's argument in page 10 of the remarks that Coy et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Coy et al. is reasonably pertinent to the particular problem of allocating processing resources because Coy et al. teach allocating computer storage or memory space, which is clearly a processing resource, in order to optimize performance.

Applicant's argument in pages 11-12, 14-16 of the remarks that Harris and Coy et al. do not teach allocating processing resources from a resource pool as a function of a pool occupancy threshold is not persuasive because Harris in col. 7 line 50 to col. 7 line 10 and col. 1 lines 14-49 which recite the resource pool being shared network resources for supporting connection

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requests in cell relay networks, such as ATM networks, requiring cell processing overhead clearly anticipate the resources include processing resources; further Coy et al. in col. 10 lines 38-50 and col. 1 line 66 to col. 2 line 5 which recite the use of a resource pool occupancy threshold level whereby data objects are moved to the next level in the hierarchy when that threshold is reached clearly reads on usage level of the pool or the use of a pool occupancy threshold being a function of allocating resources from a resource pool as claimed.

Applicant's argument in pages 12-13 of the remarks that Harris and Coy et al. do not teach allocating port processing software entities PPSEs as a function of a pool occupancy threshold is not persuasive because Harris in col. 13 lines 7-33 which recite means including hardware and software associated with the processor for creating the connection clearly reads on the PPSEs as claimed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

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the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-6, 9, 11-12, 16, 19-22, 26, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris 96,167,028 in view of Coy et al. (5,644,766).

Regarding claim 1:

Harris disclose the method of processing a request for a connection through a multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), comprising:

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allocating processing resources from a resource pool (see col. 7 lines 50-62 which recite the resource pool) as a function of: a usage level of the pool (see col. 4 lines 25-44 which recite control being a usage parameter), and a priority level of the connection request (see col. 7 lines 50-62 which recite the traffic priority).

Regarding claim 20:

Harris disclose the multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), comprising: a plurality of packet-switched ports; a pool of port processing software entities (PPSEs) (see col. 7 lines 50-62 which recite the resource pool), each PPSE having sufficient capacity to provide processing for any of the packet-switched ports; and a resource manager adapted to execute a method comprising receiving connection requests and, if a particular connection request involves at least one of the packet-switched ports, allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of a priority level of the particular connection request (see col. 7 lines 50-62 which recite the traffic priority), as a function of a usage level of the pool (see col. 4 lines 25-44 which recite control being a usage parameter).

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Regarding claim 29:

Harris disclose the multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), comprising: means for receiving a connection request means for determining a usage level of resources in a resource pool in the multi-service gateway (see col. 7 lines 50-62 which recite the resource pool); and determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level (see col. 7 lines 50-62 which recite the traffic priority).

Regarding claim 30:

Harris disclose the computer-readable media tangibly embodying a program of instructions executable by a resource manager (see col. 10 line 53 to col. 11 line 8 which recite the software resources) to perform a method of processing a received request for a connection through a multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), the method comprising: determining a usage level of resources in a resource pool in the multi-service gateway (see col. 7 lines 50-62 which recite the resource pool); and

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allocating resources from the resource pool to satisfy the connection request by determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level (see col. 7 lines 50-62 which recite the traffic priority).

Regarding claim 31:

Harris disclose the at least one computer programmed to execute a process for processing a received request for a connection through a multi-service gateway (see col. 7 line 40 to col. 8 line 26 which recite request for connection and col. 10 lines 15-39 which recite using a gateway), the process comprising: determining the usage level of a resource pool in the multi-service gateway (see col. 7 lines 50-62 which recite the resource pool); and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level (see col. 7 lines 50-62 which recite the traffic priority).

Regarding claims 2, 21:

Harris disclose wherein allocating resources from the resource pool comprises: determining the usage level of the resource pool; and allocating resources from the pool to satisfy the connection request only if the priority level of the

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connection request is higher than a pre-determined level (see col. 7 line 40 to col. 8 line 26 which recite resource pool allocation using priority).

Regarding claim 3:

Harris disclose receiving the connection request prior to allocating resources from the resource pool (see col. 7 lines 40 to col. 8 line 26).

Regarding claims 4, 22:

Harris disclose receiving the connection request from a connection server/broker prior to allocating resources from the resource pool (see col. 3 lines 26-38 which recite the source sends the request to the network control element to establish a connection clearly reads on the connection server/broker).

Regarding claim 5:

Harris disclose determining the priority level the connection request (see col. 4 lines 25-44 which recite the priority level of the request).

Regarding claim 6:

Harris disclose wherein the priority level of a connection request is a function of the type of traffic carried by the requested connection (see col. 5 lines 9-20 which recite the varying priorities of traffic from different type of equipments).

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Regarding claim 9:

Harris disclose wherein each connection request is associated a type of traffic selected from the group consisting of originating, terminating, feature and progress (see col. 5 lines 9-20).

Regarding claim 11:

Harris disclose wherein the resources are software resources for processing packets (see col. 10 line 53 to col. 11 line 8 which recite the software resources).

Regarding claim 12:

Harris disclose wherein the resources are port processing resources (see col. 12 lines 57-65 which recite the hardware for interfacing clearly reads on the port).

Regarding claims 16, 26:

Harris disclose if no resources are allocated to satisfy the connection request, blocking the connection request (see col. 1 lines 40-49 which recite that it is know to buffer the request).

Regarding claim 19:

Harris disclose means for achieving a probability of blocking that is less than a pre-determined value (see col. 1 lines 40-49 which recite statistical multiplexing on a probabilistic bases).

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For claims 1-6, 9, 11-12, 16, 19-22, 26, and 29-31 Harris disclose all the subject matter of the claimed invention with the exception of the method of allocating resources from the pool as a function of the pool occupancy threshold as recited in claims 1-6, 9, 11-12, 16, 19-22, 26, and 29-31.

Coy et al. from the same or similar fields of endeavor teach that it is known to provide method of allocating resources from the pool as a function of the pool occupancy threshold (see col. 10 lines 38-50 which recite the server performing the reclaim operation on the basis of the occupancy threshold which clearly reads on allocating resources as a function of the pool occupancy threshold). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide method of allocating resources from the pool as a function of the pool occupancy threshold as taught by Coy et al. in the method of Harris. The method of allocating resources from the pool as a function of the pool occupancy threshold can be implemented by providing the occupancy threshold of Coy et al. in the control means for allocating resources of Harris. The motivation for providing the method of allocating resources from the pool as a function of the pool occupancy threshold as taught by Coy et al. in the

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method of Harris being that it provides more efficiency and prevent loss of data for the system.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (6,167,028) and Coy et al. (5,644,766) in view of Thomas et al. (20010001000).

Regarding claim 10:

For claim 10, Harris and Coy et al. discloses the method described in paragraph 5 of this office action. For claim 10, Harris and Coy et al. disclose all the subject matter of the claimed invention with the exception of wherein the priority level of progress traffic is greater than the priority level of feature traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic as recited in claim 10.

Thomas et al. from the same or similar fields of endeavor teach that it is known to provide the priority level of progress traffic being greater than the priority level of feature traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic (see paragraph 0048 which recite priority being given to terminating gateways connected to the same network as the originating gateway). Thus, it would have been obvious to the

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person having ordinary skill in the art at the time the invention was made to provide the priority level of progress traffic being greater than the priority level of feature traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic as taught by Thomas et al. in the communications method of Harris and Coy et al. The motivation for provide the priority level of progress traffic being greater than the priority level of feature traffic, which is greater than the priority level of terminating traffic, which is greater than the priority level of originating traffic as taught by Thomas et al. in the communications method of Harris and Coy et al. being that it provides more cost efficiency and quality of service for the system.

6. Claims 13-15, 17, 23-25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (6,167,028) and Coy et al. (5,644,766) in view of Lancelot et al. (6,026,086). Regarding claims 13-15, 17-18, 23-25, and 27-28:

For claims 17, 27, Harris disclose reporting blockage of the connection request to a connection server/broker (see col. 3 lines 26-38 which recite the source sends the request to the

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network control element to establish a connection clearly reads on the connection server/broker).

For claims 13-15, 23-25, Harris and Coy et al. disclose the gateway and method described in paragraph 5 of this office action. For claims 13-15, 23-25, Harris and Coy et al. disclose all the subject matter of the claimed invention with the exception of wherein the resources are adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format as in claims 13, 23; wherein the circuit-switched format is a time-division-multiplexed (TDM) format as in claims 14, 24; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or an Internet Protocol (IP) format as in claims 15, 25.

Lancelot et al. from the same or similar fields of endeavor teach that it is known to provide wherein the resources are adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format (see col. 3 line 45 to col. 4 line 9); wherein the circuit-switched format is a time-division-multiplexed (TDM) format; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or an Internet Protocol (IP) format (see col. 4 lines 10-58). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide

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wherein the resources are adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format; wherein the circuit-switched format is a time-division-multiplexed (TDM) format; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or an Internet Protocol (IP) format as taught by Lancelot et al. in the communications method and gateway of Harris and Coy et al. The resources being adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format; wherein the circuit-switched format is a time-division-multiplexed (TDM) format; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or an Internet Protocol (IP) format can be implemented by providing the converter of Lancelot et al. in the gateway of Harris and Coy et al. The motivation providing resources being adapted to perform conversion of a signal from a circuit-switched format to a packet-switched format; wherein the circuit-switched format is a time-division-multiplexed (TDM) format; wherein the packet-switched format is an asynchronous transfer mode (ATM) format or an Internet Protocol (IP) format as taught by Lancelot et al. in the communication gateway and method of Harris and Coy et al. being that it provides the added feature of being able to connect to the Internet.

Allowable Subject Matter

7. Claims 7, 8, 18, and 28 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C.


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Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH



DAVEN
PRIMARY EXAMINER